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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/447,024	11/22/1999	LUBOMIR D. BOURDEV	07844/3420001	3275

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EXAMINER

WALLACE, SCOTT A

ART UNIT PAPER NUMBER

2671

DATE MAILED: 05/27/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/447,024

Applicant(s)

BOURDEV ET AL.

Examiner

Scott Wallace

Art Unit

2671

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 January 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

Response to Arguments

1. Applicant's arguments filed 01/03/03 have been fully considered but they are not persuasive. On page 6, the argument "As specified by the passage, it is the number of path intersections that occur within the boundary of a tile that determines the complexity value of the tile. In sharp contrast, the determination recited by claim 1 is not based on the number of path intersections that occur within a cell but rather the total number of outlines of pieces of artwork that map to the cell". Schiller et al in column 6 lines 35-65 states "Each tile has associated with it a complexity value which reflects the memory requirements of those planar map regions that lie within the tile's area. For example, a tile's complexity value could reflect the number of path intersections occurring within its boundary plus the number of local minima and maxima that occur within its boundary ...etc... the complexity value of all those tiles intersected by the path are updated". The intersections of paths with the tile is one way (an example) to find the complexity value. It is not just limited to the path intersections within the tile but also the intersection with the tile. The complexity value reflects the memory requirements of those planar map regions that lie within the tile's area. Therefore the more pieces that pass thru the greater the complexity. So the complexity is determined based on the total number of paths (pieces of artwork). So the example of a circle within a tile, Schiller's complexity would not be zero because it takes into account local minima and maxima.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

3. Claims 1-6, 8, and 10-20, 22-27 are rejected under 35 U.S.C. 102(e) as being anticipated by Schiller et al., U.S. Patent No. 6,049,339.
4. As per claim 1, Schiller et al. teaches mapping outlines of at least one of the pieces of artwork onto a grid of cells (column 6 lines 37-40), determining the total number of outlines of pieces of artwork that map to a cell of the grid (column 6 lines 43-47), identifying the cell as a complex region based on the total number of outlines that map to the cell (column 6 lines 37-59).
5. As per claims 2, Schiller et al discloses further identifying pieces of artwork to include in an illustration flattening process based on the identification of the complex region (column 6 lines 35-65).
6. As per claim 3, Schiller et al discloses wherein the illustration flattening process comprises a process for producing a planar map of the illustration (column 6 lines 35-65).
7. As per claim 4, Schiller et al. teaches excluding pieces of artwork classified as entirely inside the complex region (column 6 line 65 and column 7 lines 6-8).
8. As per claims 5, 10, 22 and 23, Schiller et al. teaches mapping comprises drawing the outlines using a rasterization engine function and determining comprises determining using a rasterization engine function (Fig. 6).
9. As per claims 6 and 19, Schiller et al. teaches identifying comprises comparing the total number of outlines of pieces of artwork that map to the cell with a threshold (Fig. 7A and column 6 lines 50-59).
10. As per claims 8 and 20, Schiller et al. teaches the threshold comprises a dynamically determined threshold (column 6 lines 53-54).
11. As per claims 11 and 24, Schiller et al. teaches classifying at least one of the pieces of artwork based on the intersection of the piece of artwork with the complex region (column 7 lines 9-22).
12. As per claims 12 and 25, Schiller et al. teaches classifying comprises identifying the piece of artwork completely inside a complex region (column 7 lines 9-22).

13. As per claims 13 and 27, Schiller et al. teaches classifying comprises identifying the piece of artwork completely outside a complex region (column 7 lines 9-22).
14. As per claims 14 and 26, Schiller et al. teaches classifying comprises identifying the piece of artwork partially inside a complex region (column 7 lines 9-22).
15. As per claim 15, Schiller et al. teaches mapping outlines of at least one of the pieces of artwork onto a grid of cells (column 6 lines 37-40), determine the total number of outlines of at least one of the pieces of artwork that map to a cell of the grid (column 6 lines 43-47), identify the cell as a complex region based on the total number of outlines of pieces that map to the cell (column 6 lines 37-59).
16. As per claim 16, Schiller et al. teaches excluding pieces of artwork comprises excluding pieces of artwork classified as entirely inside the complex region (column 6 line 56 and column 7 lines 17-20).
17. As per claim 17, Schiller et al discloses further comprising instructions to: exclude, based on the identifying of the cell as a complex region, pieces of artwork from an illustration flattening process (column 6 line 56 and column 7 lines 17-20).
18. As per claim 18, Schiller et al discloses wherein the illustration flattening process includes a process for producing a planar map of the illustration (column 6 lines 35-65).

Claim Rejections - 35 USC § 103

19. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
20. Claims 7 and 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schiller et al. in view of Carlsen et al. U.S. Patent No. 6,020,897.

21. As per claims 7 and 21, Schiller et al. teaches comparing the determined number of artwork pieces that enter a cell with a threshold as above but does not comprise a threshold based on user input.

Carlsen et al. teaches a threshold array based on user input (column 2 line 55).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to allow the threshold of Schiller et al. to be manually changed based on user input like in Carlsen et al. because this would allow the system to have greater adaptability and allow the user to control the threshold depending on the user's needs at the time. This would have been obvious because Schiller et al. uses thresholds to compare and make decisions on data.

22. Claims 9 and 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schiller et al.

23. As per claims 9 and 28, Schiller et al. teaches all of the limitations of claim 1. Schiller et al. uses artwork drawn onto tiles which by Schiller et al's description is comparable to a grid of cells. Schiller does not expressly state that the illustration has a first associated resolution and the grid has a second resolution and that the second resolution being less than the first resolution. It would have been obvious to one of ordinary skill in the art at the time of applicants invention that the illustration will have an associated resolution. When the illustration is mapped to a planar grid of cells, this grid of cells will also have an associated resolution. The invention states a process for looking at the grid and picking out cells with a determined number of lines from the artwork going thru it. If the resolution of the grid is greater than the illustration resolution then it would be difficult to pick out a cell with more than one artwork line going thru it. But if the resolution of the grid is less than the illustration resolution than it would be easier to find a cell with more than one artwork line going thru it. Being able to determine if more than one line goes thru a cell helps in determining if the cell is complex or not. Therefore it would be advantageous if the resolution of the grid is less than the illustration resolution. This would be obvious to one skilled in the art since the object of the invention is to be able to tell if the cell is complex or not.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Scott Wallace** whose telephone number is **703-605-5163**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Mark Zimmerman**, can be reached at 703-305-9798.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.



MARK ZIMMERMAN
SUPERVISORY PATENT EXAMINE
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